What is claimed is as follows:

1. Frame with adjustable steering-head angle for bicycles and motorcycles, characterized in that the bearing points which determine the steering-head angle are connected not rigidly, but to at least one bearing point providing a variable position in the steering axis, bearing against the frame by means of a swinging arm.

2. Frame with adjustable steering-head angle for bicycles and motorcycles according to claim 1, characterized in that the two bearing points which determine the steering-head angle are attached not rigidly, but to two bearing points providing variable positions in the steering axis, bearing against the frame by means of two swinging arms.

3. Frame with adjustable steering-head angle for bicycles and motorcycles according to claims 1-2, characterized in that the two bearing points which determine the steering-head angle are connected to an upside-down telescopic fork by means of fork joints and the steering-angle modification is obtained by way of a simple longitudinal shift along the axis of the telescopic fork of the clamping connections of the upper bearing point of the steering axis of the frame.

4. Frame with adjustable steering-head angle for bicycles and motorcycles according to claims 1-2, characterized in that the two bearing points which determine the steering-head angle are connected to an upside-down telescopic fork by means of fork joints and the steering-angle modification is obtained by way of a simple longitudinal shift along the axis of the telescopic fork of the clamping connections of the lower bearing point of the steering axis of the frame.

5. Frame with adjustable steering-head angle for bicycles and motorcycles according to claims 1-2, characterized in that the two bearing points which determine the steering-head

angle are connected to a rigid fork by means of fork joints and the steering-angle modification is obtained by way of a simple longitudinal shift along the axis of the fork of the clamping connections of the upper bearing point of the steering axis of the frame.

6. Frame with adjustable steering-head angle for bicycles and motorcycles according to claims 1-2, characterized in that the two bearing points which determine the steering-head angle are connected to a rigid fork by means of fork joints and the steering-angle modification is obtained by way of a simple longitudinal shift along the axis of the fork of the clamping connections of the lower bearing point of the steering axis of the frame.

7. Frame with adjustable steering-head angle for bicycles and motorcycles according to claims 1-2, characterized in that the two bearing points which determine the steering-head angle are connected to a three-part telescopic fork by means of fork joints and the steering-angle modification is obtained by way of a simple longitudinal shift along the upper axis of the telescopic fork of the clamping connections of the upper bearing point of the steering axis of the frame.

8. Frame with adjustable steering-head angle for bicycles and motorcycles according to claims 1-2, characterized in that the two bearing points which determine the steering-head angle are connected to a three-part telescopic fork by means of fork joints and the steering-angle modification is obtained by way of a simple longitudinal shift along the axis of the telescopic fork of the clamping connections of the lower bearing point of the steering axis of the frame.

9. Fork joint for bicycles and motorcycles comprising a device for receiving at least one fork leg and a device for receiving a connection with the bearing of a pivot around the steering axis, characterized in that said fork joint is designed in a two-part form and allows for an

angle modification between steering axis and fork-leg axis by means of a swivel axis disposed between the two.

10. Fork joint according to claim 9, characterized in that the swivel axis of the angle modification crosses the steering axis.

11. Fork joint according to claim 9, characterized in that the swivel axis of the angle modification crosses the fork-leg axis.

12. Fork joint according to claim 9, characterized in that the swivel axis of the angle modification is disposed at an optional distance in between the geometrically relevant connection line of the steering axis and the resulting fork-leg axis.

13. Fork joint according to claim 9, characterized in that the swivel axis of the angle modification is disposed behind the steering axis, at an optional distance outside the geometrically relevant direct connection line of the steering axis and the resulting fork-leg axis.

14. Fork joint according to claim 9, characterized in that the swivel axis of the angle modification is disposed in front of the fork-leg axis, at an optional distance outside the geometrically relevant direct connection line of steering axis and the resulting fork-leg axis.

15. Fork joint according to claims 9-14, characterized in that that the angle modification between fork-leg axis and steering axis is made possible not by means of a rotatable bearing, but by the use of flexible materials on a flexural axis.

16. Fork joint according to claims 9-14, characterized in that the geometrically relevant distance between fork-leg axis and swivel axis or flexural axis can be adjusted by a change of length.

17. Fork joint according to claims 9-14, characterized in that the geometrically relevant distance between the swivel axis or flexural axis and steering axis can be adjusted by means of a change of length.

18. Telescopic fork for bicycles and motorcycles, characterised in that the range of spring made available by said telescopic fork is obtained by means of three connecting parts which are slidable into each other.

19. Telescopic fork for bicycles and motorcycles according to claim 18, characterized in that the lower connecting part is supported by the middle connecting part by means of a spring, and shifts depending on a respective load, while the middle connecting part is supported by the upper connecting part, also by means of a spring, and also shifting depending on a respective load.

20. Telescopic fork for bicycles and motorcycles according to claims 18-19, characterized in that between the lower and the middle connecting parts as well as between the middle and the upper connecting parts two separate working chambers for springing and damping action are provided, which, owing to different adjustments in the respective spring rates and damping rates cause a different amount of dipping movement in the respective tubes over the entire range of spring of the telescopic fork to take place.

21. Telescopic fork for bicycles and motorcycles according to claims 18-20, characterized in that instead of conventional springs, a pressurized gas is used as spring element.

22. A front-wheel suspension system for the guidance and springing of the front wheel of wheeled vehicles having a single front wheel, such as bicycles, tricycles and motorcycles, said suspension system comprising:

a frame supported on the vehicle wheels, the frame providing a fixed front suspension point and a fixed steering point;

a swingable arm operatively connected at one end to the fixed front suspension point and providing a variable second steering point at the other end of the arm;

the fixed steering point and the second steering point defining the steering axis;

a fork operatively combined with the frame and having at least one fork leg for connection to the front wheel of the vehicle, the fork having a longitudinal axis;

a first fork joint operatively connecting the fork to the fixed steering point; and

a second fork joint spaced from the first fork joint along the longitudinal axis of the fork, the second fork joint operatively connecting the fork to the frame at the second steering point provided by the swingable arm;

the fork joint connected to the swingable arm being adjustably movable along the axis of the fork to thereby change the angle of the steering axis relative to the frame.

23. The front wheel suspension system of claim 22 in which the first fork joint is an upper fork joint, the fixed steering point being operatively connected to the upper fork joint, and the second fork joint is a lower fork joint, the second steering point of the swingable arm being operatively connected to the lower fork joint.

24. The front wheel suspension system of claim 22 in which the first fork joint is a lower fork joint, the fixed steering point being operatively connected to the lower fork joint, and the second fork joint is an upper fork joint, the second steering point of the swingable arm being operatively connected to the upper fork joint.

25. The front wheel suspension system of claim 22 in which the frame has a second fixed suspension point and there is a second swingable arm operatively connected at one end to

the second fixed suspension point and providing a variable third steering point at the other end of the arm, the second and third steering points defining the steering axis, and a third fork joint spaced from and between the first and second fork joints operatively connects the fork to the third steering point provided by the second swingable arm, the fixed steering point providing only a steering function.

26. The front wheel suspension system of claims 22, 23, 24 or 25 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

27. The front wheel suspension system of claim 26 in which the first member is adapted to receive an adjustment plate that increases the off-set distance between the fork leg axis and the swivel axis for adjusting the trail.

28. The front wheel suspension system of claim 27 in which the second member is also adapted to receive an adjustment plate that increases the off-set distance between the steering axis and the swivel axis, for adjusting the trail.

29. The front wheel suspension system of claims 22, 23 or 24 in which both the upper and lower fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

30. The front wheel suspension system of claims 22, 23 or 24 in which the fork is a two part telescopic fork having two connection elements movable relative to each other.

31. The front wheel suspension system of claims 22, 23 or 24 in which the fork is a three part fork, including a lower connection element connected to the front wheel of the vehicle, a middle connection element connected to the lower fork joint and an upper connection element connected to the upper fork joint, the lower connection element being slidable relative to the middle connection element in a first working chamber, and the middle connection element being slidable relative to the upper connection element within a second working chamber.

32. The front wheel suspension system of claim 31 in which the lower connection element is supported by the middle connection element by a spring in the first working chamber and the middle connection element is supported by the upper connection element by a spring in the second working chamber.

33. The front wheel suspension system of claim 31 in which a pressurized gas within each of the working chambers is the spring.

34. The front wheel suspension system of claim 32 in which a pressurized gas within each of the working chambers is the spring.

35. The front wheel suspension system of claim 31 in which the fork lower connection element is supported by the middle connection element by a spring in the first working chamber and the second working chamber serves only as a guiding element for damping purposes, and there is a monshock connected between the swingable arm and the frame.

36. The front wheel suspension system of claim 31 in which the middle connection element is formed in two parts connected by a ball and socket joint, each part of the middle connection element defining a separate working chamber containing a spring.

37. The front wheel suspension system of claim 31 in which the middle connection element is formed in two parts, a lower part and an upper part connected by a ball and socket joint, the lower part of the middle connection element defining a working chamber with the lower connection element and containing a spring the upper part of the middle connection element defining a working chamber with the upper connection element that serves only as a guiding element for damping purposes, and there is a monshock connected between the swingable arm and the frame.

38. The front wheel suspension system of claim 25 in which the fork is a four-part fork, including a lower first connection element connected to the front wheel of the vehicle, a second connection element, a third connection element and an upper fourth connection element, the third connection element having two parts connected to each other by a ball and socket joint, the first connection element being slidable relative to the second connection part in a first working chamber, the second connection element being slidable relative to the first part of the third connection in a second working chamber, and the second part of the third connection

element being slidable relative to the upper fourth connection element within a third working chamber.

39. The front wheel suspension system of claim 38 in which the first connection element is supported by the second connection element by a spring in the first working chamber, the second connection element is supported by the first part of the third connection element by a spring in the second working chamber, and the second part of the third connection element is supported by the upper fourth connection element by a spring in the third working chamber.

40. The front wheel suspension system of claim 38 in which the second working chamber does not contain a spring but serves only as a guide for the second connection element within the first part of the third connection element for damping purposes, and there is a monoshock connected between the first and second swingable arms.

41. The front wheel suspension system of claim 38 in which the first connection element is supported by the second connection element by a spring in the first working chamber, the second connection element is supported by the first part of the third connection element by a spring in the second working chamber, and the second part of the third connection element is slidable in the third working chamber within the upper fourth connection element, the third working chamber serving only as a guide for damping purposes, and there is a monoshock connected between the frame and the second swingable arm.

42. The front wheel suspension system of claim 41 in which the second working chamber does not contain a spring but serves only as a guide for the second connection element within the first part of the third connection element for damping purposes, and there is a monoshock connected between the frame and the second swingable arm and a monoshock connected between the first and second swingable arms.

43. A fork joint for the guidance and springing of the front wheel of wheeled vehicles having a single front wheel, such as bicycles, tricycles and motorcycles, the suspension system having a steering head with a steering axis and a fork with legs providing a fork leg axis, the fork joint comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to the steering head; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

44. The fork joint of claim 43 in which the first member is adapted to receive an adjustment plate that increases the off-set distance between the fork leg axis and the swivel axis, for adjusting the trail.

45. The fork joint of claim 43 in which the second member is adapted to receive an adjustment plate that increases the off-set distance between the steering axis and the swivel axis for adjusting the trail.

46. A four-part telescopic fork for use with the front-wheel suspension system for the guidance and springing of the front wheel of wheeled vehicles having a single front wheel, such as bicycles, tricycles, the telescopic fork comprising:

a lower first connection element connected to the front wheel of the vehicle;

a second connection element;

a third connection element, the third connection element having two parts connected to each other by a ball and socket joint; and

an upper fourth connection element, the first connection element being slidable relative to the second connection part in a first working chamber, the second connection element being slidable relative to the first part of the third connection in a second working chamber, and the second part of the third connection element being slidable relative to the upper fourth connection element within a third working chamber.

47. The four-part fork of claim 46 in which the first connection element is supported by the second connection element by a spring in the first working chamber, the second connection element is supported by the first part of the third connection element by a spring in the second working chamber, and the second part of the third connection element is supported by the upper fourth connection element by a spring in the third working chamber.

48. The four-part fork of claim 46 in which the second working chamber does not contain a spring but serves only as a guide for the second connection element within the first part of the third connection element for damping purposes.

49. The four-part fork of claim 46 in which the first connection element is supported by the second connection element by a spring in the first working chamber, the second connection element is supported by the first part of the third connection element by a spring in the second working chamber, and the second part of the third connection element is slidable in the third working chamber within the upper fourth connection element, the third working chamber serving only as a guide for damping purposes.

50. The four part fork of claim 49 in which the second working chamber does not contain a spring but serves only as a guide for the second connection element within the first part of the third connection element for damping purposes.

51. The four part fork of claims 46, 47, 48, 49 or 50 in which a pressurized gas within each of the working chambers is the spring.

52. The front wheel suspension system of claim 36 in which a pressurized gas within each of the working chambers is the spring.

53. The front wheel suspension system of claim 37 in which a pressurized gas within each of the working chambers is the spring.

54. The front wheel suspension system of claim 31 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

55. The front wheel suspension system of claim 32 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

56. The front wheel suspension system of claim 33 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

57. The front wheel suspension system of claim 34 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

58. The front wheel suspension system of claim 35 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

59. The front wheel suspension system of claim 36 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about

the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

60. The front wheel suspension system of claim 37 in which at least one of the fork joints comprises:

a first member having a clamping seat for operatively connecting the first member to the fork;

a second member having means for operatively connecting the second member to one of the steering points; and

a swivel connection providing a substantially horizontal swivel axis between the first and second members so as to provide for relative movement of the first and second members about the swivel axis, thereby providing for modification of the angle between the steering axis and the fork axis.

61. A three part fork, for use with the front-wheel suspension system for the guidance and springing of the front wheel of wheeled vehicles having a single front wheel, such as bicycles, tricycles, the telescopic fork comprising:

a lower connection element connected to the front wheel of the vehicle;

a middle connection element;

an upper connection element; and

the middle connection element being formed in two parts, a lower part and an upper partconnected by a ball and socket joint:

the lower connection element being slidable relative to the first part of the middle connection element in a first working chamber, and the second part of the middle connection

element being slidable relative to the upper connection element within a second working chamber, each working chamber containing a spring

62. The three part fork of claim 61 in which the second working chamber contains no spring and serves only as a guiding element for damping purposes.

63. The three-part fork of claims 61 or 62 in which a pressurized gas within each of the working chambers is the spring.